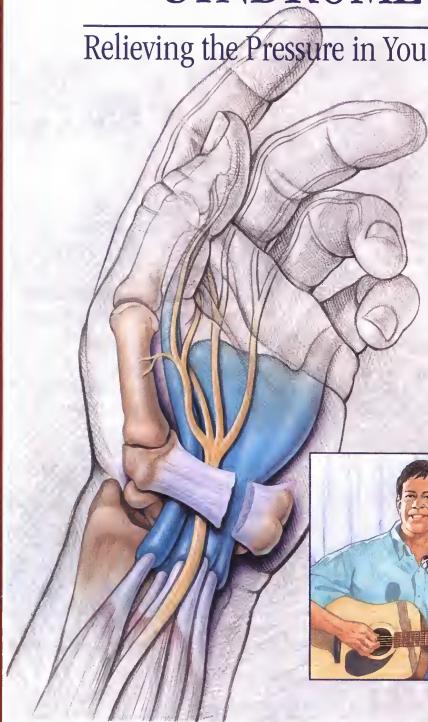


CARPAL TUNNEL SYNDROME

Relieving the Pressure in Your Wrist



Understanding Carpal Tunnel Syndrome

Carpal tunnel syndrome (CTS) is a problem that affects the wrist and hand. If you have CTS, tingling and numbness can make even simple tasks hard to do. But CTS can be treated, and your symptoms can be controlled. Reading this booklet will help you better understand what CTS is. You'll also learn how treatment can help.

The Symptoms of CTS

Tingling and numbness are the most common symptoms of CTS. Some people also have hand pain or even a weakened grip. At first, symptoms may wake you up at night. Later, they may also occur during your daily routines. For instance, you may notice symptoms while you are driving, or holding a newspaper. Your symptoms may become more severe over time.



Symptoms of CTS may keep you up at night.

Working with Your Doctor

Your doctor will perform an exam to learn more about your symptoms. Once your problem is diagnosed, you and your doctor can make a treatment plan. He or she can help you learn about symptom relief and surgery. If you have surgery, you are likely to go home the same day.



An exam helps your doctor diagnose CTS.



A splint or medication may help relieve symptoms.



Surgery may be needed to manage severe CTS problems.

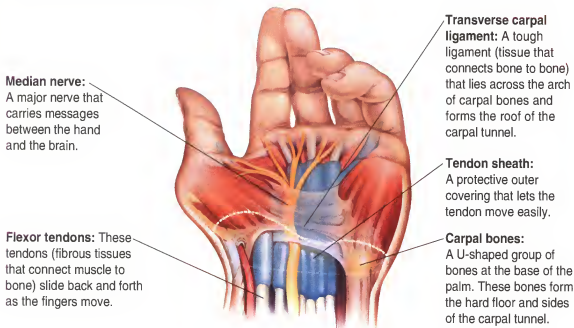
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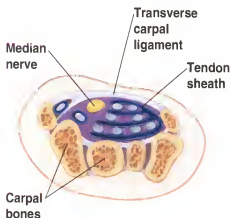
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Learning About the Carpal Tunnel

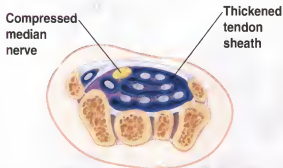
The carpal tunnel is a narrow space inside the wrist. This space lets certain tendons and a major nerve pass from the forearm into the hand. Learning about the carpal tunnel can help you understand your symptoms and treatment.



A Wrist with CTS



The carpal tunnel: A narrow space in the wrist that is surrounded by bone and ligament (see the section tinted in purple above). In a healthy wrist, the median nerve is not compressed in the carpal tunnel.



With CTS, the tendon sheath may thicken and enlarge. This reduces the amount of space inside the carpal tunnel. As a result, the median nerve may be compressed. This can lead to tingling, numbness, or other symptoms.

Diagnosis and Early Treatment of CTS

To help with your diagnosis, tell the doctor all the symptoms you've noticed. To confirm a CTS problem, you may have certain tests. Depending on the results, your doctor may suggest that you take medication or wear a splint.



Your doctor may check for nerve damage.

Your Examination

The doctor will want you to describe your symptoms. You may be asked questions like: Do you have any numbness or pain? When do you notice symptoms? During the exam, your hand and wrist will be checked. This may involve holding your hand in certain positions. The doctor may also check the median nerve.

Tests You May Have

Your doctor may order tests to confirm CTS and to rule out other problems. The test results can also be used to plan surgery, if needed.



X-ray of hand lying flat



X-ray showing the inside of the carpal tunnel

X-rays

Hand or wrist x-rays may reveal a broken bone or arthritis. Either of these could be the cause of your symptoms.



A nerve conduction test can help confirm CTS.

Other Tests

You may also have a nerve conduction test and an electromyogram (EMG). These tests use low levels of electric current to reveal how the nerves and muscles are working.

Taking Medication

At first, your doctor may suggest taking aspirin or ibuprofen. This can help reduce pain and swelling. But if you need to use either of these medications each day, call your doctor. He or she may want you to try a prescription medication, instead.



Cortisone Injection

Cortisone can greatly reduce inflammation. When used to treat CTS, it is given by injection. You may feel some soreness for 24 to 48 hours following the injection. But after that, you're likely to have symptom relief for many weeks.

Wearing a Splint

Wearing a splint, either at bedtime or during the day, may help reduce your symptoms. A splint works by keeping the wrist in a neutral (straight) position. This prevents extreme movement that may narrow the carpal tunnel. Be sure to use the type of splint suggested by your doctor.



If You Have Surgery

Surgery may be done if your CTS symptoms become severe. Or, you may have surgery if no other treatment brings relief. There are two types of CTS procedures. You will be told about the one you will have. You'll also be instructed how to prepare for it.



Preparing for Surgery

- In the weeks before surgery, do your best to quit smoking. Quitting can limit problems after surgery. It may even help speed healing.
- Tell your doctor about medications you take. This includes aspirin or other blood thinners.
- You will be told about the type of **anesthetic** (medication to prevent feeling pain) given during surgery.
- Do not eat or drink anything after the midnight before surgery, or as directed.

The Goal of Surgery

Two types of surgery—**open** and **endoscopic**—are used to treat CTS. No matter which one you have, the goal remains the same: Your surgeon will relieve pressure on the median nerve. To do this, the transverse carpal ligament is cut (released). Surgery for CTS often takes about an hour.

Possible Risks

Your surgeon will discuss the possible risks of carpal tunnel surgery. Although very rare, they include the following:

- Damage to nerves or blood vessels
- Unrelieved symptoms
- Infection



Possible incision site

Open Surgery

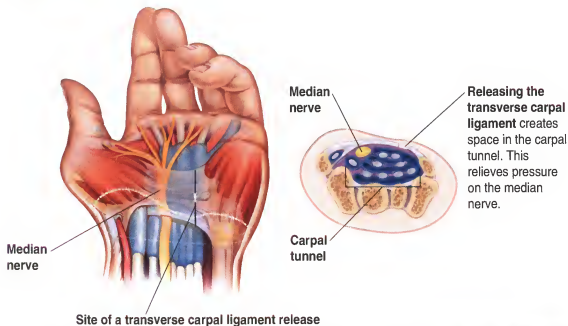
With open surgery, your surgeon makes one incision in your palm. Then he or she releases the transverse carpal ligament. Standard surgical tools are used.



Possible incision sites

Endoscopic Surgery

With endoscopic surgery, one or two small incisions may be made in your hand. A scope (with a very small camera attached) and tools are inserted under the transverse carpal ligament. The surgeon then operates while watching images on a video screen.



When to Call the Surgeon

Call your surgeon if you notice any of the following:

- White or pale-blue hand or nails
(You pinch your skin or nails and the color doesn't return)
- Pain that is not relieved by prescribed medication
- Loss of sensation or excess swelling in hand or fingers
- Fever over 101°F

After Carpal Tunnel Surgery

If you've had carpal tunnel surgery, you will spend a few hours resting before you go home. The nerve sensation and circulation in your hand will be checked at this time. For the safest healing, keep the following in mind:

- Keep your hand raised above heart level. This will help reduce swelling.
- Limit hand and wrist use as instructed.
- Take any pain medication as directed.
- Do hand exercises as directed by your healthcare provider. These can help you ease into action.



Your healthcare provider will instruct you about incision care before you go home.



Keep your wrist in a neutral (straight) position when exercising.

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